

OHLSSON et al
Serial No. 09/931,280

Atty Dkt: 2380-486
Art Unit: 2686

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Editorially amend the specification.
2. Editorially amend claims 7 and 15 to moot the 35 USC §112, second paragraph, rejection, and amend the preambles of independent claims 9 and 10.
3. Respectfully traverse all prior art rejections.
4. Request that the Examiner consider the art cited in the Information Disclosure Statement (IDS) filed August 17, 2004.
5. Advise the Examiner of the simultaneous filing of a Petition to Extend (three months).

B. PATENTABILITY OF THE CLAIMS

Claims 1, 2, 6-10 and 14-17 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent 5,408,517 to Nyhart et al. Claims 7 and 15 under 35 USC 103(a) as being unpatentable over U.S. Patent 5408,517 to Nyhart et al. Claims 3-5 and 11-13 under 35 USC 103(a) as being unpatentable over U.S. Patent 5408,517 to Nyhart et al in view of U.S. Patent 5,267,261 to Blakeney, II et al. All prior art rejections are respectfully traversed for at least the following reasons.

The Office Action alleges that U.S. Patent 5,408,517 to Nyhart et al. teaches both "initiating at the destination base station a preliminary portion of a handover sequence including uplink radio synchronization" and "initiating at the destination base station another portion of a handover sequence ...". In reality, U.S. Patent 5,408,517 to Nyhart et al. merely (and cryptically) teaches a synchronization process to begin handoff.

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Essentially the entire technical teaching of U.S. Patent 5,408,517 to Nyhart et al. discusses the pre-handoff "count downs" in order to synchronize the fact of handoff. Nyhart describes activities which lead up to a switching point "so that handoff of the communication unit 108 can occur at a specific point so that there is no break..." (col. 2, lines 15 – 18). Other than coordinating the beginning of handoff, Nyhart has no teaching about the content of the handover sequence itself.

Just activities leading up to the specific point of Nyhart's handoff are described (e.g., in col. 2, line 44 and col. 3, line 14). There is no description of the handoff process itself, much less any description that the handoff process is bifurcated into two separate portions: one which is time critical and another which is not. Nor is there any teaching or suggestion that the separate portions of the process are instituted or commenced by separate measurements, as required by dependent claims 3 and 11, for example.

There is no indication that the "handoff" of U.S. Patent 5,408,517 to Nyhart et al. is a soft handover of the type claimed by applicant. In contrast to hard handover, soft handover is a "make-before-break" switching operation.

Applicants do not not predict when a fixed-threshold handover for a mobile station will occur, but instead provide a novel way for starting soft handover. When a dynamic offset threshold for soft handover is exceeded, a preliminary portion of a handover sequence is initiated at the destination base station. The preliminary portion of the handover sequence is initiated so that a time-critical handover sequence activity (such as L1 uplink synchronization) is well underway, if not completed, by the time the soft handover is actually needed. The dynamic offset threshold for starting handover is based on a probability that the mobile station will engage in the handover. The probability is a statistical probability that handover will actually occur based on handover history of other mobile stations previously and similarly traveling and of the same signal strength.

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Applicants' claimed subject matter allows a soft handover procedure to be executed at a point in time when the cost of execution is as low as possible, thereby leading to increased capacity in the network and lower risks for dropped calls at soft handover. The cost of execution can be expressed as a combination of utilized radio resources, utilized hardware resources, and the rate of dropped calls.

Nothing in U.S. Patent 5,408,517 to Nyhart et al. or any other applied references teachings a performing a preliminary portion of a handover procedure before a decision has actually been finalized that the handover will, in fact, occur. And certainly no applied art teaches or suggests that activities such as uplink radio synchronization be performed in such a preliminary manner! (Please note carefully that synchronization of the occurrence of the handoff is not the same as synchronization of the uplink radio channel (e.g., L1 synchronization)).

Nither U.S. Patent 5,408,517 to Nyhart et al. nor U.S. Patent 5,267,261 to Blakeney, II et al. describe a two separate step or two separate portion handover sequence, and certainly no two separate portion handover sequence in which the two distinct portions are initiated by two separate measurement reports as required by dependent claims 3 and 11.

In view of the foregoing and other considerations, it is respectfully requested that all prior art rejections be withdrawn and the claims allowed.

C. REQUEST FOR CONSIDERATION OF IDS

Applicants respectfully request that the Examiner consider the art cited in the Information Disclosure Statement (IDS) filed August 17, 2004, and make official citation thereof.

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D. MISCELLANEOUS

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



H. Warren Burnam, Jr.
Reg. No. 29,366

HWB:lsb
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100